

Plate Count Skim Milk Agar

For determining the microbial count in milk and dairy products.

The culture medium complies with the recommendations of the International Dairy Federation (Internationaler Milchwirtschaftsverband) (1991) and the DIN Norm 10192 for the examination of milk and dairy products.

Mode of Action

Addition of skim milk to a culture medium with a superior nutrient base optimally adapts it to the neutral conditions experienced by microorganisms which grow in milk. More colonies grow and a wider range of bacteria can be cultured than in other culture media intended for the same purpose (TERPLAN et al. 1967).

Typical Composition (g/litre)

Peptone from casein 5.0; yeast extract 2.5; skim milk powder (no inhibitors) 1.0; glucose 1.0; agar-agar 10.5.

Preparation

Suspend 20.0 g/litre in cold water and allow to stand for about 15 minutes. Transfer flask to a cold water bath and heat gently, with frequent shaking, until completely dissolved, then autoclave (15 min at 121 °C).

pH: 7.0 ± 0.2 at 25 °C.

The plates are clear to opalescent and yellowish.

The reconstituted culture medium is more or less opalescent. According to DIN it can be stored for up to 3 months in the refrigerator, the temperature should not exceed 5 °C.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used and the methods which are utilized.

Incubation: 24 h at 35 °C aerobically.

Literature

DIN Deutsches Institut für Normung e.V.: Mikrobiologische Milchuntersuchung; Bestimmung der Keimzahl (Referenzverfahren). - **DIN 10192**.

Internationaler Milchwirtschaftsverband: Milch u. Milchprodukte, Zählung von Mikroorganismen (Koloniezählung bei 30 °C) - **Internationaler Standard 100 (1991)**.

Internationaler Milchwirtschaftsverband: Flüssige Milch. Zählung von psychotrophen Mikroorganismen (Koloniezählung bei 6,5 °C). - **Internationaler Standard 101 (1991)**.

TERPLAN, G., RUNDFELDT, H. u. ZAADHOF, K.-J.: Zur Eignung verschiedener Nährböden für die Bestimmung der Gesamtkeimzahl der Milch. - **Arch. Lebensmittelhyg.**, 18; 9-11 (1967).

Ordering Information

Product	Merck Cat. No.	Pack size
Plate Count Skim Milk Agar	1.15338.0500	500 g
Plate Count Skim Milk Agar	1.15338.5000	5 kg



Pseudomonas aeruginosa
ATCC 27853

Quality control

Test strains	Inoculum (cfu/ml)	Recovery rate %
<i>Staphylococcus aureus</i> ATCC 25923	10 ³ -10 ⁵	≥ 70
<i>Staphylococcus agalactiae</i> ATCC 13813	10 ³ -10 ⁵	≥ 70
<i>Lactococcus lactis</i> spp. <i>lactis</i> ATCC 19435	10 ³ -10 ⁵	≥ 70
<i>Listeria monocytogenes</i> ATCC 19118	10 ³ -10 ⁵	≥ 70
<i>Bacillus cereus</i> ATCC 11778	10 ³ -10 ⁵	≥ 70
<i>Escherichia coli</i> ATCC 11775	10 ³ -10 ⁵	≥ 70
<i>Pseudomonas aeruginosa</i> ATCC 27853	10 ³ -10 ⁵	≥ 70
<i>Candida albicans</i> ATCC 10231	10 ³ -10 ⁵	≥ 70